



## PRESS RELEASE

### **EMCORE, MERGEOPTICS, OPNEXT, QUAKE AND WAVESPLITTER ANNOUNCE FORMATION OF INDUSTRY TRADE GROUP TO PROMOTE 10GBASE LX4 INTERFACE FOR ETHERNET**

#### **- LX4 Modules Commercially Available from Trade Group Members -**

**October 21, 2004** — EMCORE Corp. (NASDAQ: EMKR), MergeOptics GmbH., Opnext Inc., Quake Technologies Inc. and Wavesplitter Technologies Inc. today announced the formation of the LX4 Trade Group (LX4-TG). The LX4-TG's mission is to promote interoperability and market awareness for the LX4 standard, which offers the ability to transmit 10 Gigabit Ethernet (10GbE) data over existing multi-mode fiber and single-mode fiber infrastructure.

LX4 products in the XENPAK form factor are readily available from multiple vendors, with X2 modules expected in the near future. Each of the 10GBase-LX4 modules from the members of the LX4-TG conform to the highly versatile multi-wavelength transmission format specified within the IEEE 802.3ae standard for 10GbE, which was ratified in June 2002.

Designed to support LAN, Access, Metro and Core applications, LX4 technology provides tremendous value to end users by significantly improving communications data rates over legacy multi-mode fiber that was originally installed to support 100 Megabit Ethernet, One Gigabit Ethernet or FDDI applications. Transmission distances are 300 meters over legacy multi-mode fiber, which is specified as a minimum modal bandwidth of 500MHz-km in the 1310nm window. LX4 modules from different vendors will interoperate, and a pluggable port format offers interchangeability via the front panel. In addition, pluggable LX4 technology enables a "Pay-as-You-Populate" cost structure during installation.

"EMCORE is excited to participate in an industry trade group focused on the LX4 standard, which offers unparalleled flexibility to transmit large volumes of data over a wide range of installed multi-mode fibers," said Bryan Gregory, Vice President of Marketing for EMCORE's Fiber Optics Business Unit. "The LX4 Trade Group will provide market visibility to this robust and established standard, demonstrate clear multi-vendor support, and test product interoperability. Each of the member companies brings a wealth of talent and experience to this market, and we look forward to working with fellow industry leaders to promote LX4 technology."

"LX4 is currently the only existing solution based on proven technology and guaranteed to work 100% in legacy multimode fiber applications up to and beyond 300meters. MergeOptics is excited to participate in a trade group that echoes its fundamental business philosophies by demonstrating product interoperability, and



providing customers with an easy, cost efficient way to upgrade existing infrastructures to 10GbE," said Dag Neumeuer, Founder and CEO of MergeOptics.

"LX4 is the only approved IEEE standard for supporting legacy multimode fiber applications to at least 300m and it is also the only proven technology that works and is cost effective," said Edward Cornejo, Director of Product Marketing for Opnext. "Large OEM's have committed to LX4 technology, which has spawned significant optical device and packaging innovations. Opnext is pleased to work with its industry colleagues to help drive market acceptable LX4 technology."

"Customers are looking for a cost effective way to upgrade legacy MMF infrastructure to carry higher data rates, up to 10Gb/s. LX4 transceivers leverage proven technology to enable these customer requirements. As a supplier of Xenpak and X2 form factors of LX4, we are pleased to be part of the TG, to promote LX 4 technology,"  
Steve Tsui, President of Wavesplitter Technologies, Inc.

"LX4 is the only working solution that allows for the use of the majority of installed multi-mode fiber links for 10Gb/s traffic. This is crucial for accelerating the adoption of 10GbE in data centers and corporate backbones," said Daniel Trépanier, President and CEO of Quake Technologies. "Quake has demonstrated strong commitment to the LX4 market and will continue to do so. We look forward to working with other industry leaders to enable cost-effective 10GbE."

#### **About 10GBase-LX4**

The 10GbE (IEEE 802.3ae) standard offers several ways to transmit data over different physical media. The term 10GBase-LX4 references a multi-wavelength approach to fiber optic transmission. The "10" stands for 10 Gigabits per second; "Base" means baseband communications; and "LX4" designates four optical wavelengths combined within the module and transmitted over fiber optic cable. Other 10GbE baseband interconnects include 10GBase-CX4, 10GBase-SR, 10GBase-LR and 10GBase-ER. These interconnects are usually offered in integrated modules that insert into Xenpak, X2 or other pluggable port slots, mounted on switches, routers, servers or storage systems.

#### **About the LX4 Trade Group**

The LX4 Trade Group (LX4-TG) is a global trade organization formed in October 2004 to promote interoperability and market awareness for the LX4 multi-wavelength format within the IEEE 802.3ae standard for 10GbE. Its founding member companies are EMCORE Corp., MergeOptics GmbH, Opnext, Inc., and Wavesplitter Technologies, Inc. For more information on the LX4-TG's activities and member company information, visit the organization's Web site at <http://www.lx4.org>.

#### **About EMCORE**

EMCORE Corporation offers a versatile portfolio of compound semiconductor products for the rapidly expanding broadband and wireless communications markets and the solid-state lighting industry. The company's integrated solutions philosophy embodies state-of-the-art technology, material science expertise, and a shared vision of our customer's goals and objectives to be leaders and pioneers in the rapidly growing communications market. EMCORE's solutions include: optical components for fiber-to-the-curb/home/business, cable television, and high speed data and telecommunications; solar cells, solar panels and fiberoptic satellite links for global satellite communications; and electronic materials for high bandwidth communications systems, such as Internet access and wireless telephones. Through its participation in



GELcore, LLC, EMCORE plays a vital role in developing and commercializing next-generation LED technology for use in the general illumination market. For further information about EMCORE, visit <http://www.emcore.com>.

### **About MergeOptics**

MergeOptics GmbH, was founded in Germany, in September 2000. They develop highly integrated components for the rapidly growing high-speed fiber optic data transfer market. The company integrates optical components (lasers, modulators and photo diodes) with high-frequency electrical circuits to create compact modules that operate with industry standard optical and electrical interfaces. MergeOptics' business objective is to specialize in high speed optical products that are world-class for both integration and performance. MergeOptics has partnerships with several leading German universities and research facilities, including the prestigious Heinrich Hertz Institute in Berlin, Germany. For more information, please visit the company's website at [www.mergeoptics.com](http://www.mergeoptics.com).

### **About Opnext**

Opnext, Inc., pioneers the optical engines that light the world's fiber optic systems. A global leader in high-performance active optical components, Opnext offers the industry's most comprehensive optical components portfolio. Formed out of Hitachi, Opnext brings more than 30 years experience to the design, development and manufacture of high-performance components, opto devices and subsystems that power today's access communications, backbone, metro, information and industrial markets. Opnext provides world-class customer service, and has been recognized with multiple service awards. For additional information, visit [www.opnext.com](http://www.opnext.com).

### **About Quake Technologies, Inc.**

Quake Technologies is the leading fabless semiconductor company supplying 10Gb/s physical layer, mixed signal ICs for high-speed optical networks. Quake's products serve optical modules, such as Xenpak, X2, Xpak, and XFP, as well as system or line cards in 10GE networking equipment and support such interfaces as XAUI, XFI, LX4 and CX4. Quake's feature-rich ICs offer the highest levels of integration plus performance to provide total system optimization in data networking and storage applications. Quake's corporate headquarters are located in Ottawa, Canada, with sales and applications engineering based in San Jose, CA. For more information, visit [www.quaketech.com](http://www.quaketech.com).

### **About WaveSplitter Technologies, Inc.**

WaveSplitter Technologies, offers flexible and scalable technology platforms, advanced design capabilities and extensive manufacturing capacity through partnerships with high quality, low cost, large stable manufacturing partners. WaveSplitter is a leading supplier of passive and active solutions to Network systems manufacturers for Long Haul, Metro / Access, Enterprise Networks encompassing Ethernet and SONET networks. WaveSplitter has adapted with the market, to be a major supplier of cost effective, active solutions, which include PON & P-2-P and FTTX in the local access networks. With eight years of proven track record, WaveSplitter delivers generic and customized solutions with fast development cycles. WaveSplitter offers the agility of a start up and the resources of a large corporation enabling competitive advantage to our customers. For more company information, please visit [www.wavesplitter.com](http://www.wavesplitter.com)



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